

GLASGOW

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Thesis.

*On spinal irritation and the ill defined
& unsatisfactory position of the subject
with notes of some 40 cases.*

June 20/93.

David Macdonald M.B.C.S.

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Instructions for reading.

Most of the essay is written on the right hand page, works quoted from on the left hand page. The heading is given either complete or partially at the head of each page.

Direct quotations are marked as such and written a little in from the margin. To draw attention to works quoted from, omissions, and anything on the left page an arrow will be used.

General plan & Scope of the work.

As there is great difficulty in appreciating the connections & grasping the details in a written essay as compared with a printed copy the points taken up will be announced at head of each page, and a copious index given first.

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Date	Author	Treatise or work from which it is taken.
1838	Playfer.	From Leake's Treatise
1838	Dr J. Brown	" " "
1839	Darrell	Hammonds Diseases of Nervous System.
1839	Leake.	A Treatise on neuralgia diseases dependent upon spinal irritation of the spinal marrow & ganglia & sympathetic nerves.
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1831.	Corrigan	Hammond.
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1886	Brown Sequard.	Quinis Dictionary of Medicine

Acknowledgement

I here to acknowledge my indebtedness
to the authors on previous page, to
Heales Diges in finding them
Also to my friend to maintain you
liberty to quote case III but particularly
to my friend to them for liberty to
ransack his journals (consulting room)
to compose cases and for advice when
discussing points debatable.

1st Consideration : Choice of name and reasons for it :

Spinal irritation : irritable spine : spinal anaemia ;
neuralgia spinalis , spinal tenderness
rachiologia , notalgia .

"I find some difficulty in giving a name to
" this disease , but as it consists perhaps
" in a state of increased irritability in
" some of the spinal nerves , we may
" name it spinal irritation " So wrote
D. J. Brown in 1824 and the difficulty
does not seem to have lessened in any
way at the present day . A method
adopted by the Royal College of Physi-
cians in their Nomenclature of Diseases
is to avoid giving any name whatever
others (Bristow's Practice of Medicine) class under
Hysteria , - a thing that may not be
so far astray when that wonderful
disease gets cleared up of its mysteries -
and others again (Hammond , Nervous diseases)
giving it a name - Spinal Anaemia -
that assumes a pathology that at any
rate is disputed . Rachiologia has never
come into general use , although it is
an old term , probably from the reason

1st Consideration: Choice of name & reasons for it.

That spinal irritation is the simpler one and convey a meaning as to what is really wrong. Without going further, it may simply be said that spinal irritation covers all the ground necessary, commits one to no particular pathology, is easy to understand, and calls attention at any rate to the part requiring treatment so that for these reasons I think it is good term, and one that can safely be used until another has been found, which is more accurate.

2nd Consideration: That the disease is a real one although its separate existence has been & is questioned

A more serious thing (than the choice of name) is the objection to the disease at all, some denying that any such disease occurs to which the name can be applied and that in any case there is no such group of symptoms sufficiently defined & related as to warrant a distinctive name; the following from

Darnell . Leals . Lines p. 9 - 10.

2nd Consideration continued.

← Darwell in answer to the idea that this so-called disease was merely a symptom of other disease says

- " this spinal affection may perhaps, be
- " considered as the consequences of disease
- " but of its existence at their commencement
- " anyone may satisfy himself and this
- " circumstance, combined with the success
- " which has attended the application
- " of remedies to the tender parts of the
- " vertebrae appear to indicate that.
- " the cause may exist there

That part of Darwells letter appear to me to cover most of the arguments against this being a distinct disease and Gale was quite cognizant that real disease of the spine may set up an inflammatory condition around & so set up spinal irritation but over and above that you had an independent condition of spinal irritation. And he mentions how in a case of lateral curvature combined with spinal irritation that you may cure the Sp. irritation while the curvature still remains. In connection with this last

Brown in Hammond p. 384.

Brown Reques in Quain's Dictionary of the name

2nd Consideration continued.

← quotation it may be pointed out that it completely refutes the idea mentioned in Hammond and attributed to Brown that the pain was due to a muscle in a condition of spasm pressing on the nerve and thereby causing pain, as in the lateral curvature you have that condition without the spinal irritation

← Brown Sequard in Laines Dictionary of Medicine says

"notwithstanding the doubts which have been

"entertained by many authorities both

"British & foreign, spinal irritation is

"an affection which has a real

"existence and deserving a special name.

and against the idea that if it exists it is merely as a part of another disease he says

"Although spinal irritation may like

"other affections be allied with or

"caused by various organic or

"functional nervous diseases, the name

"should be reserved for those special

"cases chiefly characterized by a

"morbid excitability of the sensitive "

Cagill. *Ediopathia viridula* spine. B.M.f. 115 of 1911

2nd Consideration continued.

- " nerves of the spine manifesting itself
- " by tenderness under pressure or by
- " spontaneous pain or when the parts
- " are moved."

As regards there being an idiopathic sp.

irritation and a symptomatic one Coghill says

- " He terms spinal irritation, radicular etc
- " are used indifferently in the best
- " books and mostly refer to a
- " secondary affection of Somewhat vague
- " pathological identity of which the
- " characteristic feature is tenderness
- " on pressure over the spinous process
- " of one or more vertebrae and that it
- " is mostly in women associated
- " with pains in mammae, thorax
- " ovaries, uterus & abdominal viscera
- " and sometimes by others it was
- " viewed as a combination of myalgia
- " and hysteria dependent on general
- " debility (Korman). It is present as
- " an incidental affection accompanying
- " uterine disorder & gastric ulcer?
- He then goes on to show how it
- is idiopathic and calls his cases such.

Hammond: *Business & nervous system* p. 393

2^d Considerations continued

Hammond ~~misunderstands~~ says

"it must be confessed that the great mass
 "of the profession regard the whole theory with
 "suspicion if not distrust that there is
 "a definite affection of the spinal cord
 "characterized by tenderness on pressure over
 "one or more vertebrae and certain ce-
 "ntric disorders involving sensibility
 "the power of motion and functional
 "derangement of many of the viscera"

Perhaps what has led to the suspicion more
 than anything else are the facts that the
 disease is often overlooked and the spinal
 sensation so insignificant a part of the
 disease or at least of such slight im-
 portance apparently compared with the
 other symptoms such as palpitation.

pain in side etc, and practitioners
 have all along been meeting with these
 symptoms without any spinal tenderness
 that they object to any new classification
 that threatens to overturn their years
 of patient observation.

Another thing is that like all new things
 too much perhaps has been claimed for it

2nd Consideration continued.

and there was an apparent danger of the serious diseases of the spine being mistaken for it in cases in which the spinal irritation was merely a symptom of more serious disease of the spine. That such a danger exists is apparent from the lengthy rules given for assisting in the diagnosis by Paget. In these cases it has no ^{more} rights to the name than pneumonic conditions of the lungs - say in entire form - have to the term pneumonia, though you may say that it exists and can be treated often with benefit.

3rd Consideration. The Definition

To limit its application, it may be defined as a disease characterised by pain & tenderness in one or other part of the spine, attended by disordered sensations of in distal parts connected with part of spine affected, & functional derangement of the viscera is frequent as is also loss of motion. Before going further it may be said with propriety at this point that the whole

H. J. Brown in Lull's Essay p. 6.

3rd Consideration: The definition

disease as defined may be symptomatic of other and more serious disease and in fact often is. Yet cases — and there are the real spinal irritation cases — are met with frequently in which there is at least no evidence of any other ailment

4th Consideration (a) That it is a disease, (a) peculiar in regard to the manner in which it has been neglected both by authors particularly of late years and by practitioners & ^(b) surprising in the extent of its symptoms.

The disease is not so uncommon as one might suppose from the scanty attention paid to it and the frequency of the disease and its diagnosis are not of equality in number. In this connection Dr Brown already quoted from says

"I think this disease by no means of rare occurrence but which appears to be occasionally overlooked & neglected. I allude chiefly to those morbid affections of the Spinal nerves so often met with in young females and occasionally in

H⁴ Consideration (a) continued.

"in women also and in males"

The consequences of this neglect both by authors and practitioners — although Dr Brown softens the accusation as much as possible, belonging to the old school of medical gentlemen. —, are that many are either totally ignorant of the disease or think it rare and neglect it altogether and thereby render difficult a diagnosis that might have been clear and treatment void of results that might have been a success. Patients with flatulence treated as if flatulence were the disease swallowing copious draughts of carminatives laxatives when the bowel simply has allowed accumulation of gas through lack of tone cases of palpitation, gastrodynia & pyrosis treated on similar ^{lines} & receiving the desired success in most of cases when cases like the above occur as they do over & over again the knowledge that they may be part of the symptoms of this spinal irritation is surely worth having and attending to in making up your diagnosis.

Lecture. Lecture on neuralgic diseases dependent on
irritation of the spinal marrow & ganglia of
the sympathetic nerve. p. 2.

4th Consideration continues.

neglecting a possibility (let alone a probability) in affairs medical may have long reaching consequences.

The following extract from Zales' work has considerable bearing on this point & those authors who don't feel well enough acquainted with the disease to describe it in their works could hardly do better than simply print Zales' essay "in toto" to fill the gap.

Zales says

"That too often neuralgias of Stomach have
 " been regarded as actual disease of the
 " nervous filaments instead of as being
 " symptomatic of disease in the larger
 " nervous masses (i.e. cord) from which
 " those filaments are derived, hence the
 " treatment has too frequently been
 " ineffectually applied to the seat of
 " neuralgia instead of being directed
 " to the more remote and less obvious
 " seat of disease "

and to point out how this is wrong
 and not the usual course he takes
 as example the analogous case of the

^v
Hale

4th Consideration continued.

brain affections and continuing says

"when through an affection of brain
"you have local anaesthesia etc, the
"skin and muscles are not eyed with
"suspicion but the brain, yet in the
"slightest affections of the nervous masses
"only producing tremors, spasms, and
"numbness, pricklings, pains & other
"morbid feelings in the nerves of sensa-
"tion this important principle of pain
"being referred to the dominations is
"forgotten and a numerous class of
"frequent occurrence are regarded
"as nervous or spasmodic disease of
"part affected instead of as actual
"diseases of the portion of brain or
"cord from which they are derived".

He is equally emphatic about the similar
condition of the ganglia of the Sympathetic
and their corresponding disordered functions

"hence many affections of the viscera
"ought not to be considered as disease
"of the viscera themselves but as
"Symptomatic of disease in their own
"particular (or other influencing) ganglia

4 Consideration (6) continued.

Keale pushes his study of this disease further than most of his fellow authors and makes it include the rather obscure affection *Angina pectoris* as well as lead colic. At first sight this appeared rather astonishing but he gives good reasons for his conclusion and after a study of his ideas on the subject the thing appears less & less strained. Certainly the rarity of *form.* conditions that have been found in cases of *Angina* and the number of cases in which the heart is found quite normal the number of cases in which the same abnormal conditions have been found without any signs of *Angina* might well incline one to the opinion that whatever may cause certainly it is not the heart. Again slight attacks of cardiac neuralgia seem similar except in intensity to real *Angina* only differing in degree from spinal irritation very frequently causes cardiac neuralgia & other cardiac affections such as palpitation irregular action etc so that no very gross stretch of the imagination is

4th Consideration (b) continued.

is necessary to see a connection between cases of Angina pectoris and spinal irritation. Hale quotes three cases in which the evidence is pretty clear as to the connection. I have ^{not} lately had a chance of watching for spinal irritation in any Angina cases but my friend Dr. Frew of Kilmarnock had one lately with the two features very well marked, in a very gouty subject.

As regards the lead colic he thinks that the constipation is due more to the paralysis of the intestines from deposits in the larger nervous masses (e.g. cord) than to the deposition of lead in the walls of the bowels as is the usual teaching. He has this in his favour that when lead attacks the higher parts the upper limbs are paralyzed, deposited there lower in the cord you have the lead colic. He quotes a case or two in which lipping in the lumbar region on account of aching pain there and in which the effect was to give rapid relief.

5th Consideration.

That this neglect is only part of neglect of
the minor ailments particularly minor spinal
complaints.

Perhaps as a fair sample of a minor
ailment that is treated quite lightly and
yet one that makes the patient's life
a burden is that of pain in the back.
One has only got to have it for a couple
of days to find how it incapacitates you
for any work whatever. Of the universality
of the complaint perhaps no one has taken
more stock of the fact than the quacks.
All quack medicines whatever else they
may profess to cure or however disguised
their natures, lay claim to relieve pain
in the back, and this fact is
generally announced in prominent type
to catch the eye of all sufferers.
Mother Seigel, Warner's Safe Cure and others of
equal standing all vaunt pain in the
back as their leading aim to cure.
Though it is far from pleasant to be
indebted to quacks for anything yet
this much may be granted, they have

5th Consideration continues

a good knowledge of the world and what pays best and they evidently strike "it" in this one symptom. Take 30 cases any day suffering from a variety of things, a good proportion of them suffer from pain in the back. One would have expected that a complaint so all prevailing would have received the attention it merits but the facts are other wise. Of all the points that go to make up the diagnosis from the patient's story, the pain in the back is least thought of, possibly as it is so common that it is regarded as worthless as helping to a diagnosis that may or may not be but it is of some importance to the patient that it should be attended to.

Practitioners too often simply foolpook the painful back with the remark it means nothing and will go away when the patient gets stronger whereas a little patient examination into the cause of it, would have saved much suffering & misery to the

5th Consideration continues.

patients

The hypochondriacs that read the awful consequences following on unattended pain in back, that usually illustrate the quack advertisement and which usually contains cases of cases of spine disease specially selected to terrify the readers, the medical advisors statements that the pain in the back means nothing brings no relief to their anxious minds. A careful examination of it and suitable treatment of it and its cause would save the practitioners credit and the hypochondriacs money.

In many of these cases the pain is neither more or less than that of spinal irritation and of that number a fair proportion of them have it from a similar condition of the sexual apparatus which OGD shows is very liable to set it up and a few well chosen inquiries might here set the practitioners on safe ground & the patients on the way towards recovery by knowing the

Abd. on some disorders of nutrition related with
affections of the nervous system. B.M.J. 2/84
p. 209. et following.

5th Consideration continues.

cause & the necessity for avoiding it
The importance of the diagnosing of it and
the avoiding its continuance can be
grasped best by a complete Study of
this Article

He maintains that as parts of the body,
particularly the uterine surface in man
and the uterine surface in women are
liable to set up a spinal irritation as
their centre in the cord, that centre
has great influence in affecting other
centres as evidenced in the sexual
act in which he says the variety
of emotions is due to the different
centres influenced by the sexual one.

Carrying this idea further he says that
the uterine surface has great power in
producing enormous excitement in the cord
and accounts thereby for the production
of joint disease - digitiform nodi in
women suffering from dysmenorrhoea
the joint affection being a dystrophy
determined by the nervous irritation pro-
pagated as the case happens from the
uterus to the cord, spinal irritation set

5th Consideration continues.

up, and from that centre other centres are involved and from them to their parts supplied which may be the joints. In this connection he makes spinal irritation a sort of helping stage in the progress of the disease. (These kind of cases according to Brown Sequard would not come under the description of spinal irritation, a rule theoretically correct but in practice where you have often to treat symptoms not easy to observe.) Ordo essay makes one wonder how far this idea of his may yet lead to and it seems by no means improbable that the large class of causeless diseases of women may ~~arise~~ arise from a reflex spinal irritation originating in a continued state of irritation of the sexual apparatus from overindulgence. If that is so what need for wonder at the too often fruitless efforts to treat them successfully.

This sore head should rather be interpreted as a storm signal &

Byron Bramwell ; Spinal Cord diseases of: p. 142.

5th Consideration continued.

swearing taken in time before irreparable damage is done

There is no doubt that the success of the Osteopathic treatment has been largely due to the observance of the minor troubles particularly that of pain in the back and the cases cured by it ~~are~~ are seldom of even cases of the spine though they often think they are but in nearly all cases simply spinal irritation so that the attention paid to the spine amply repays itself in the resulting cures greatly to the glory of the Osteitic treatment and the discomfiture of the local doctor who had been unable to do good.

Pain in the back so far from being valueless from a diagnostic point of view is easily enough classified as a synopsis of Byron Brammelle's table will show, the conditions being readily distinguishable from one another.

Pain from 1st Inflammatory condition of
 Skin & subcutaneous tissue } \overline{C} other signs of local inflammation

2nd Muscular Rheumatism or
 Lumbago } not affecting the general health, acute in onset.

5th Considerations continued.

3.rd From smallpox, yellow fever, (influenza) and } have other signs
other infectious diseases } of fever

4.th Disease in or about } condition of urine, character,
kidney, as pyelonephritis } of pain, and physical
examination help you.

5.th Disease of vertebrae as } steady progression of disease
primary bone disease } in Pott's, the rigid back.
aneurysm, cancer. } (See Paget's diagnosis p. 94.)
Pott's disease

6.th Reflex pain in uterine } (but being reflex, I think it
disease, & ulceration } is spinal irritation N. No.)
of Stomach.

7.th Neuralgic affections as } marked hyperaesthesia from
Spinal Exhaustion } no apparent cause, age
Spinal Irritation } no evidence of organic disease

8.th Spinal Meningitis } the acute is easily & the
acute & Chronic } Chronic with difficulty dis-
tinguished from spinal irritation
(see p. 104. .)

9.th Tumours in the Cord. } signs of slow compression
of cord. Secondary tumours
perhaps, absence of Pott's
particularly gradual & steady
advance.

5th Consideration continued

The excuse of the valueless character of pain in the back for diagnosing the cause having been shown ~~ground~~ to be groundless some other excuse must be sought for, to account for the neglect. Perhaps the fact of the spine being difficult to get at for examination on account of our methods of arranging clothing, - the pure fact has that advantage over our dress if the spine in those days troubles any of the well built ancients - , so that neglecting pain in the back is only part of a general neglect of spinal disease unless their features are well marked. Too long the heart and lungs & anterior organs have enjoyed a monopoly & the time has surely come when along with other organs, the condition of the spine, normal or abnormal will be noted. As a general rule even in Hospital reporting the spine is not examined & reported on, unless there are special symptoms to lead to the examination.

That such an examination will repay the trouble is doubtless, if there is nothing wrong; then you are satisfied of your-

5th Consideration Continued

as to the completeness of the examination & if there is something abnormal you have earned a good deal of time & trouble. Not one case but several have occurred to my knowledge lately when the spinal aspect of the case was missed for months & persistent plunging treated with equally persistent blistering until the want of success caused the friends to suggest a consultation which had to the discovery of well advanced spinal curvatures. Out of sight out of mind is an adage specially true of spine mischief.

An instance of the gross carelessness if ~~not~~ a stronger word should not be used, of spinal complaints treatment was brought home to me the other day of which case short notes may be given as illustrating the neglect of Spinal Disease.

And. Stur. Smith

ages 21, miner,

showing marked evidences of old bone disease in hands & face was admitted into Kiln. Infirmary; labelled by his doctor, pain in the side with breathlessness supposed case of

5th Consideration continued

of influenza. He complained mostly of pain in side shortness of breath, and general weakness but there was no history of an influenza attack. On removing his clothes he by chance dropped an article & stooping to pick it up, his manner of doing so attracted attention to his back. He had manifestly both disease in dorsal region with rotation of the vertebrae so that the spines were displaced to the right side and a strong band of muscles on that side stood out in a state of tension. His left side right round from spine to sternum was covered with half detached dried skin showing the number of blisters that had been used for the pain but without benefit as was to be expected. On getting him to lie down the rigid bar of muscle disappeared at once but another rather prominent feature presented itself viz a large fluctuant tumour in the walls of the abdomen on the right side (right lumbar region) (He couldn't say how long it had been there his doctor hadn't seen it). A hypodermic needle - sterilised - was passed into it and a few drops of pus withdrawn.

5th Consideration continued

He was transferred to the Surgical team & on the following day two pints of pus evacuated after a few incisions. Nothing was said to him as to his transfer from the medical needs or as to the conduct of his doctors, though at the tender age he would probably be able to reason for himself. These two cases will show at least how prevalent the out of sight out of mind rule is even in medicine and the necessity — if the examination is to be considered complete — of examining the spine along with the heart, lungs & other organs. This part of the subject looks hardly be considered complete unless it is pointed out that although your careful examination of the spine gives you a negative result you can't be positive of the absence of the disease called spinal irritation because part of the object of this article is to show that you may have spinal irritation without the irritation i.e.

6th Consideration: That you may have cases of spinal irritation in which you will

5th Consideration continued.

fail to discover any sign ^{of tenderness} of spinal irritability
no matter how carefully you may examine

That the most important part of the disease is absent may be disappointing a little yet this complaint does not stand alone in this respect as it is a well recognized fact that in cases in all respects scarlet fever you have no scarlet rash or any rash at all, the so-called Scarlatina sine exanthemata and more than one notable & trustworthy observer has pointed out that you have peculiar cases of angina pectoris without the pain, - Angina sine dolore -

In cases of spinal irritation in which the main symptoms are those of stomach & other abdominal organs exaggerated mainly by the sympathetic ganglia, I have supposed that the ganglia are the defaulters and affect or impress the centres near it in the spinal cord & this latter part is evidenced by the spinal irritability. Thereabout, now it is not unreasonable to suppose you may have

6 Consideration continued.

The sympathetic ganglia affects without it affecting in its turn the spinal center and you thereby have cases of spinal irritation without the irritation i.e. tenderness.

A knowledge of this fact, I hold to be of prime importance as otherwise you might go on afflicting the unfortunate stomach treating it for pyrosis, flatulence etc without anything but temporary benefit if even that. The proof of the truth of your diagnosis in these cases is the fact that by applying remedies to the part of the back that should have been tender cures the ~~stomach~~ stomach etc as the case may be.

In fact all cases of stomach, heart abdomen etc should have an examination of the spine before any treatment is begun and you may save for future use copious draughts of carminatives and other drugs that the patients too often are deluged with.

Another point is that in all so-called neuralgias, particularly those other than in the head & face but not excluding

them, treated without relief, examine the spine and treat any diseased irritability and even in the event of not discovering any on the golden rule of pain being referred to the distant ends of nerves apply your local treatment to the spine or at least twist it and the painful part.

Part II

The method of doing the next part of the essay; whether to take up symptoms first, then cases or leave the cases until the diagnosis, causation and other parts are treated of, or whether to take up the diagnosis with the causation previous to the description of the symptoms is matter of perplexity, but I have come to think that giving the symptoms before anything else is more satisfactory, as understanding aetiology cannot but be a difficult matter unless you understand the disease upon to be described. To render the matter as easy as possible to

Index of Symptoms, & Classification of them.
 follow a page-like an index page
 — of the arrangement of the symptoms
 will be given.

Symptoms

1. Their great variety and apparent incongruity
-
2. The necessity of dividing the symptoms into two groups, A. and B.
-
3. Group A. Those connected with or at parts of spine affected evidenced by tenderness pain etc.
 1. Pain & tenderness on pressure
 2. Pain & tenderness without pressure
 3. Sites of pain & relative frequency
 4. Character of pain & different degrees of intensity
 5. Pain & tenderness not present at all.

4th Group B. Those in distal parts of the body and connected however with the affected part of the spine.

1. General progress of the case
2. The varieties according to Teale
3. The varieties according to Figgins
4. Conclusion arrived at from Coghill

Leah. Ed. p. 15.

Symptoms 1st Their great variety and apparent incongruity.

An account of the symptoms could hardly be better introduced than by an extract from Leale

" The symptoms consists of an infinite
 " variety of morbid functions of the
 " nerves of sensation & volition, having
 " their origin in the spinal marrow
 " and parts affected are those supplied
 " by the nerves arising there. These
 " morbid conditions are of every
 " variety from the slightest deviation
 " from the healthy sensation to the
 " most painful neuralgic affection
 " on the one hand and complete
 " numbness or loss of feeling (on the
 " other): pains fixed & fugitive
 " or darting along course of nerve.
 " pricklings, tinglings, crepiness, water
 " -bricking sensation, and many others
 " muscular weakness, loss of power
 " spasms, tremors, cramps and even
 " rigidity (see Case III), & even rigidity
 " often when the morbid condition is slight
 " The only complaint made is that of

Symptoms 1st This variety etc

" of an unaccountable sense of weakness &
 " inability to exertion, sometimes the
 " tremors excite the alarm or the
 " pain in the distal parts, particularly
 " that in the intercostal nerves seq-
 " quencing the much dreaded pleurisy
 " or in the abdomen when great
 " fear may arise that some serious
 " organic disease has set in.
 " Cases have existed for years in
 " which it has been regarded both
 " by the patients and friends as well
 " as by medical attendants as of a
 " rheumatic affection.

A disease presenting among other features
 the symptoms, - as most prominent, of
 palpitation pyrosis and pain in side
 & in abdomen as well as tinglings
 in the arms would without the knowledge
 of this eccentric disease be deemed a bit
 of a puzzle, yet such combinations or
 even less related to one another occur.
 Hysteria has been called Hydrachaea,
 this disease seems the exact reverse having
 one head - the tender spine - & many bodies
 or tails - the different symptoms.

Symptoms 2. The necessity of dividing the symptoms into two groups, viz (B) the symptoms in the distal parts of the body and mostly complaints of arms (A) those connected with the actual irritation of the spine.

That there is a necessity for dividing them is apparent from a glance at the variety and the natural way into which they fall into two groups, besides rendering a description of them much simpler & more easy to follow. The most important symptom from the patients point of view will be here described as palpitation is just the same whether from spinal irritation or from some other complaint.

Hammond uses the terms central & eccentric for his divisions & nothing can be objected to those terms except that you require to think which are which, local & general would do or local & distal.

Symptoms 3. Group 1. Those connected with the part of spine affected evidenced by pain or tenderness.

Of these the main features and one might almost say the only features are pain &

July 20. p. 6.

Symptoms 3rd. Those connected with pain of spine affects and tenderness evinced generally by pressure sometimes without, the difference in these two is usually only a matter of degree as regards the amount of hyperaesthesia present when great you have the tenderness without any pressure being necessary to evoke it. In many cases, pressure is required & the patient is often very surprised at the finding of tenderness & pain in that part. Playfair in this regard says

" Patients are surprised themselves at the
" discovery of tenderness in a part
" of whose implication they had no
" suspicion.

The majority no doubt have either pain or a tingling feeling in the back & often come with the complaint or as part of a general out of sorts condition.

Tenderness at one or more points on the spinal column, increased by pressure.

One might almost say that is the most essential symptom and one of great value when present in diagnosing the disease. Movement of any kind, walking, jumping, riding in carriage may cause it.

Brown Sequa. Quain Submar p. mid.

Geo. Frisvold spine & myalgia Practitioner 7/64 p. 407.

Symptoms 3rd Those connected with spine etc.

pressure to be made aware to the patient
often however it is only by dint of going
over the spine separately pressing each
firmly with finger & thumb, or tapping
with knuckles that you get evidence
of the tenderness and pain. Some use an
idea rubber headed hammer for this purpose
and Hammond thinks that he brings
out another kind of pain which he
calls spontaneous deep-seated pain in the
cord, though of its distinction from
the foregoing there is little evidence

3rd. Sites of tenderness & relative frequency
of one part to another.

This varies much, in regard to part or parts
of spine affected and also to a slight
extent in so far as spinous process or
lateral process is the particular part, as a
general rule it is over the spinous process
Brown Sequard says

- " Pain is usually over spinous process
- " unless when unilateral in which
- " case it is consequently over the
- " lateral process

According to D. J. C., the pain extends in

Symptoms.

Situations of tenderness
middle line and alongside spines.
As regards the parts of the spinal column
some important observations & statistics have
been made.

It may be only one single vertebra or
groups or even the whole spine although
the latter condition is the rarer one

Griffins found it in 23 out of 148 =

Hammond found it in 15 out of 156 =

Coghille in all his cases found

" extreme pain aggravated by pressure from
" occiput to lumbar region

Situation may be cervical alone, dorsal, lumbar etc
or combined cervico dorsal, dorso lumbar, lumbo-
sacral.

It may be in one vertebra or column or two,
or several.

It may exist in the same case in two or
more separate parts of the spine

The same case may have it at one time at
the cervical part at another time at the dorsal
or lumbar regions

The most frequent part by all observers
is agreed to be the dorsal & next to
the cervico dorsal.

(Dr. J. says "seldom more than two vertebrae.")

Pages. Numerous numbers of organic vitamins L. and 1/45.
p. 463.

Symptoms. 3rd. Those connected with spine etc.

1st. Character of pain & different degrees of intensity

As has been already mentioned casually, the degree of pain varies much from very slight irritations requiring some skill in producing to such exquisite tenderness that after one touching it the patient will on no account allow a repetition of your action.

Sometimes the merest touch on the tender spot will produce nausea & even vomiting. Brown-Séquard says in regard to this sensitiveness

"Myalgia is often combined with it and

"in that case, whole masses of muscle

"being attacked, hyperaesthesia is very

"intense"

Coghill calls the pain "extreme" when the whole spine is attacked

(Paget denies that the pain is ever extreme, in organic disease, saying that if it is, you have ~~not~~ a case of spinal irritation to deal with and not ~~an organic disease~~ ~~but a case of spinal irritation~~)

The pain may be said to vary from very slight to the most acute degree.

Austin says "a pain quite distinct from the confused & superficial soreness of lipothymia."

Symptoms. 3 - Those connected with spine etc
 5° Pain & tenderness not present at all.

These cases are the most perplexing of all kinds.
 The reason for this condition has been already
 given still it is none the less confusing.
 Perhaps the cases most frequently with it abound
 are those in which the stomach and intercostal
 regions are affected and practitioners
 have long been familiar with the fact that
 a blister to the spine was often more effective
 in curing a pain in the stomach than
 any other thing in certain cases, the
 actual manner in which the cure was
 effected not being understood. Another
 part that has been frequently blistered
 without any good reason except that
 it effected a cure is the nape of the
 neck for bad persistent headache.
 The guide to the part to be blistered will
 be given along with treatment only
 the true part will be obvious enough.
 It is at least worth remembering and worthy
 of a trial and certainly not more
 distasteful to the patient than the copious
 draughts of bitters etc. (Case 45.)

Grippus. Hammond. p 378.

Symptoms. 5th Those connected with spine etc. —
 The brothers Jiggin found this condition only in
 5 out of 148 cases
 and Hammond says these were suspicious
 cases of spinal irritation and he doesn't
 believe in cases in which it is absent.
 Radcliffe admits it may be ~~absent~~ not
 be well marked, Flint however does not
 consider pain & tenderness essential
 features, finding it absent or not
 well marked in 5 out of 48.
 Out of upwards of 40 cases analysed
 for present essay, at least 7 or 8 did not
 show it. The diagnosis in these cases
 must always be doubtful though the
 curing of them by applying remedies
 to the spine is almost conclusive proof
 of the correctness of the diagnosis.

Having cleared the way of these
 local symptoms, ~~the~~ the distal & more
 prominent ones may be taken up.

---Anstie, Diseases of Nervous System. Lancet. 2/75 p. 437.

Symptoms Group B. Those in distal parts of the body
connected however with the affected
part or parts of the spine

1. As an example of how the cases progress
insidiously & very mysteriously without giving
much evidence of its true nature. The
following from Anstie may be given

- " Once frequently nothing but headache
- " with nausea & vomiting. These may
- " disappear and be replaced by faceache
- " or a neuralgia of some part of the
- " brachial plexus. May have insomnia
- " or nightmare along with headache
- " Itch & hands cold

The above would not give you much ground
on which to form a diagnosis, yet it
is probable all you would find unless
you pursued your physical examination
further than the usual limits, breaking
down the monopoly that the heart lungs
etc have possessed.

- " During any part of this period
- " you would have found tenderness
- " on pressure over the spine quite
- " distinct from hysterical hyper.

Hale Ed. p 15 - 14.

Symptoms 4th Those distal etc

- " ~~nausea~~ and pressure in some
- " parts might at once bring on
- " nausea & vomiting. There is little
- " or no rise in temperature but rapid
- " pulse is the rule.
- " You may have complete freedom from
- " pain in the recumbent position

As a general rule you have more or less
 languor and feeling of indifference &
 failure of the general nervous power

The extent of this disease can best be
 seen & understood from a table and
 the following one (from Hale) will clear
 the way for the others. Liberty has been
 taken in arranging Hale's account of the
 symptoms in a tabular form a thing
 he would hardly have countenanced.

Upper cervical	{	Neuralgia of Scalp
		Neuralgia of ear
		Neuralgia of Skin of neck
		Stiff neck
		Alteration of voice
		Loss of voice

Symptoms 4th Thoracic distal etc.

Lower Cervical	<ul style="list-style-type: none"> Neuralgia of shoulder Neuralgia of arms Neuralgia of thorax Swelling of mammae Loss of power of extremities, unable to hold pen. Altered sensation
Upper dorsal	<ul style="list-style-type: none"> Intercostal fixed pain girdle pain oppression in epigastrium
Lower dorsal	<ul style="list-style-type: none"> stiffness of lower ribs & diaphragm pains fixed & fugitive in abdomen
Lumbar region	<ul style="list-style-type: none"> Sacroal pain pain in legs Sense of insecurity

The table shows at a glance how variable the disease may be and it may be said in passing that it has a sort of Chameleon like character because as the part affected with spinal tenderness may be changed so are the characters of the symptoms altered, and if in a case this took place rapidly or at any rate

Giffins Austen 20.

Symptoms. It^h Thro^{at} Aital. etc.

between your visit you would be rather astonished to find the symptoms which were in head & face has gone & been replaced by stomach symptoms, raising suspicion of hysteria. The brother's friend gave a very exhaustive account of the symptoms in his conclusions and the following table prepared from them will be some service both in showing the extent of the disease and the parts to be treated when no tenderness exists

Cervical only.	Head ache Face ache Fib of coma Arms affected Cough Nausea Vomiting pain in side palpitation oppression dyspnoea Stomach ache hicough Syncope Vertigo flatulences	Cervical & Dorsal
Dorsal only	abdominal pain iliac pain gluteal pain pain in leg dysuria ischuria pain over pubis testicular pain	Dorsal and lumbar.
Lumbar only.		

They have strangely enough omitted to mention micturition as part of the symptoms.

Boydell 20.

Symptoms. General observations.

From the complexity of the symptoms it is quite beyond the scope of this essay to give ⁱⁿ ~~the~~ detail any of the symptoms nor if it would serve any good purpose to do so. Before however giving a description of the cases, the conclusions arrived at by Coghill will be given and their value examined afterwards.

He found in all of them

1. A predisposing temperament. (sanguine lymphatic)
2. An exciting cause (nervous exhaustion)
3. General symptoms { pain & tenderness of spine,
absence of any hyperic reflex.
anæmia, loss of appetite,
laughor debility, loss of
flesh, insomnia
4. Seat of pain (extending from occiput to lumbar)
5. Absence of any fibrile movement.
6. A phosphatic condition of urine: heavy deposits
7. A condition indicating local plethora at the
seat of pain.
8. Absence of any evidence of peripheral irritation
sufficient to set up reflex pathological
action or process in the cord
9. A rapid & regular resolution of the morbid
process under treatment.

Cases.

Case 1

Mrs W. age 38, married, no family, and about a year previous to admission to Infirmary had separated from her husband as he was useless for her support, drinking as he did all he earned. For support she had acted as washerwoman and during the last six months has suffered from constant feeling of tiredness and sense of heaviness, persistent cough with which she has been annoyed than with the other symptoms. An almost constant pain in the back between shoulders, & aching in nature. She also complains of being breathless on little exertion and easily excited, at which occasions her heart would begin to race. Does not sleep well but has a fairly good appetite. She is pale & anaemic at present but she declares that she never has much colour. She had had advice in France for her cough but nothing that has been tried has done her any good and she had come to the country to see if the country air would work any improvement. Not improving any her sister had brought her to the Infirmary.

Cases.

1. continued.

As her main complaint was of her cough
I first examined her chest but failed
to find anything but the breathing a
little hurried, heart rapid and excited in
action. Proceeding to the back on
attempting to listen with the stethoscope
where she said was pained, I found
the tenderness was such as to render an
examination of that part of the back
impossible. By dint of great care
I managed to define the tender area
to be of a circular, 1-2-1 3- or 4- Dorsal
vertebrae, particularly the 3- Dorsal
one. I completed the examination but
found nothing else abnormal. Menstruation
normal and menstruation had been
getting scanty for some time back
otherwise normal.

I came to the conclusion that I had a
Case of spinal irritation to deal with
and resolved to treat as follows

1. Locally. Painting over tender part
with Smith's Blackening fluid
2. Internally, from want of anything
particular in memory as

Cases 1 continued.

at the time gave some Aconitine
balleys pain and some bromide
to quieten the action of the heart.

The following day she said the pain was
less in the back, cough not quite so bad.
This improvement continued and in about
four days, the blisters were renewed &
this time with even better results. Pain
almost completely gone, cough subsiding.
The general appearance improves and
most noticeable ~~goal~~ was that she
had lost the anxious look she had had
at the first.

After the effects of the blisters had passed
off, a liniment was given her to
apply of the following

R. Linimenti Trebruthene acet.
and a bitter tonic of nuxvomica,
and cinchona was ordered.

Since then she has had no return &
is well enough to work for her living.
This case probably was occasioned partly
by her hard unaccustomed work and
partly by the marital relationships.

Case II.

James F. minor aged 42. Well built and strong looking man. was admitted to Infirmary complaining of severe & persistent pain over scalp extending from occiput to forehead & from middle line to right ear. He has suffered from this headache for a couple of weeks before admission and had had it treated by the usual neuralgic remedies. His general health was good only he was quite useless for working on account of pain. There was nothing else complained & nothing else was discovered. The Scalp was very tender and continued down to the nape of the neck only being a little less so there. He kept his head covered as the air blowing on it made it sore so that the tenderness was exquisite. Pressure in nape of neck was sufficient to set up sharp twinges of pain all over the tender scalp. The tenderness was limited in the neck to 1st & 3rd Cervical vertebral spines so far as you could make sure of them seeing the finger has none.

Case II

Blisters were applied on each of tenderness in neck, and Antifebrin & Salicin given in powder as the patients complain severely of inattention unless they are swallowing some nauseous thing. Little if any relief followed the application of the blisters until the second removal. After that the pain disappeared gradually lessening day by day, until in about 10 days after admission he was quite well. He came back to report himself afterwards and had had no return of it after leaving.

Case III

James Walker, labourer, aged 38, Case almost same as last. Had been ill about with fearful headache, from which he had no relief night or day no sleep, no temperature, pulse about 72, tongue clean, bowels constipated until the day when he had calomel & jalap. Eyes congested and was also the face & neck.

Skin of head means tender but 4th 5th & 6th Cervical vertebrae was very tender. Under same treatment as last case he was better in about 6 days, blisters only being applied once.

Case III. Marion S. aged about 29, married for years, no family, - no obvious disease of the maternal parts as she has been carefully examined by a specialist Dr Playfair of London as well as closely watched by her family physician Dr Macintosh to whose kind news I am indebted for liberty to quote the case. In some years now she has had twitchings of the muscles of the legs, and sometimes extending up to the body as high as the waist, now and again these twitchings are replaced by violent spasms, and the limbs remain rigid for some time. This condition is no way more than it was at first attack and has had no effects other than transitory.

These attacks began first, after a visit to a military tournament which lasted for four hours and during which there was a good deal of firing. That was six years ago. Before this the patient was subject to backache and tiredness on exertion. Menstruation regular and attacks in question in no way related to the menstrual period either by being simultaneous or alternate but are usually brought on by fatigue.

Case III

or over excitement

Family History good, mother died of chronic Brights at about 61 years. They are distinctly nervous as a family.

Her present condition is as follows.

Attacks continue as before and chiefly trunk, having contraction of all the abdominal muscles, also those of legs frequently also those of back.

Spine more or less tender all down but special points 12th Dorsal & 4th Lumbar ones a little to the left of spinous process.

Bowels constipated. Functional palpitation frequently. Digestion good. Considerable irritability of the bladder as evinced by frequency of micturition which symptom is worse when back aches or when tired out.

The usual remedies blisters, caustic, liniments have been applied to the spine but with little but temporary relief. Internal remedies have little if any effect.

This is a case that some would class as hysterical but the days are coming when hysteria will no longer exist all the

Case III continues.

different manipulations of it being pointed out to the readings to which they should belong.

Case IV Ptha B. aged 24, unmarried and following no particular employment having means of support, complains of having ever since an attack of influenza in 1890 frequent attacks of lumbago, which lasted for a week or two and came on from no discernible cause, at least no history of cold or damp.

On each occasion he suffered greatly from extreme flatulence, distension both of stomach & bowels and as this had been thought at first to be the cause of the pain in the back he had been dosed with copious draughts of carminative & laxatives without any result. A tight bandage around waist gave relief, stooping was painful, lying was comfortable at any rate in fact the only position easy was sitting upright in stiff backed chair.

Case IV

The usual remedies for lumbago, gave a little temporary relief and the attack gradually passed off sometimes only remaining well for a few days when a fresh attack took place.

From the want of success in treating it I now resorted to a complete examination of the back and there found most the dorsal region tender but particularly the 8th 9th & 10th vertebrae, on the spinous processes, on either side of the three areas there was considerable hyperaesthesia. Firm pressure did not elicit any deep pain. Nothing else abnormal was found except heart hurried. Palpitation was also frequent when flatulence was present.

I applied strong liniments of iodine to the tender parts and beyond with orders to repeat nightly for three nights and gave Fe. Muc. from 7.5 three times a day, ordinary diet to be taken.

His night present sleep better & during the day could sit up much more comfortably and in a couple of days

Case IV.

The symptomatic complaints of were mostly gone

There was no recurrence for some months when one took place accompanied by severe cardiac neuralgia. Tenderness was found higher up - 1st dorsal as well as the old spots.

Treatments same as before and with good result.

Under the fear of the cardiac pain the patient this time let me into the cause of it by confessing of his own accord that he had been given to masturbation and that this attack had followed on an unusually irritated state of the sexual organs. Advice was given but whether followed or not is more than can be said.

Case V. Charles Watson, age 45, now working as a labourer but formerly a block printer. Big, strongly built man and at present complaining of violent pain a little below situation of spleen and which he imagined was pain in the kidney. He declared that he had passed no water for 36 hours during which time he has been working. On proceeding to examine him, nothing was discovered except great pain along course of 9th dorsal nerve and that spine was very tender, as was also one in lumbar region. There was no swelling as might have been found in surgical kidney cases and the pain was not of the paroxysmal kind that occurs in such cases. Heart, lungs & stomach with liver seemed normal and functions in no way deranged, except that he complains of sharp shooting pain in region of heart.

The case seemed to be a case of spinal irritation with ischuria as a leading symptom, so blisters were ordered over painful part of spine & along

Case v.

course of nerve that was tender.

Bowel being a little constipated, Calomel & Jalap powder was ordered him. Next morning pain was much relieved and he had passed water quite naturally. This was kept & examined, & was found to be a little high in colour, no blood, no albumen, no phosphates in fact there was nothing abnormal except being scanty. During the day he passed water at regular intervals; and pain greatly lessened but did not quite go away until the blisters had been scapping some days after. He was dismissed in about 10 days, and now three months after has had no return of it.

Case vi. Mary Quistin, aged 18 mill worker.

admitted with obstinate pain in stomach & vomiting from no apparent cause.

Stout fair complexioned girl who did not seem much the worse of her complaints. This had existed at least 4 months and all sorts of drugs had been

Case VI

tried ineffectually. Her appetite was good. Periods regular and menstruation the same. Within a week previous to admission she had noticed that she was troubled with a cough when her stomach was sore.

The pain was in pit of stomach, almost constant, food relieving it and much increased by firm pressure, pressure sometimes bringing on nausea & vomiting. Her tongue kept clean even when the vomiting was present.

Examination of the lungs revealed nothing except hurried respiration.

Examining the spine I found the spine tender and that mostly over the 6th & 7th dorsal. Nothing else abnormal could I find. I applied blistering liquor over the 6th & 7th spaces & gave her Ecualgine grⁱⁱ Salicin gr^x as the pain in stomach was great. Since then she has improved steadily and is now quite well. Whether the pain in stomach was from the spinal irritation at first I am doubtful.

as the family Doctor took great care in examining all cases.

Case VII Miss C. aged 32. pale anaemic looking. Complains mostly of pain in left knee and walks lame from it. Pains sometimes shoots up to hip. Has slight pain on pressure at back of hip joint but joint is quite free in movement & both limbs are equal in length, in short there is no evidence of impinging hip joint disease. There is marked tenderness over two or three dorsal spines. Has also pain in left side of abdomen which is worst at menstrual periods: menstruation regular. Has been more or less unwell for the last 14 months previous to which she nursed a sister - consumptive - for a long time. Tongue furred, bowels constipated but takes aperients regularly.

Treatment. Blisters to spine and an iron tonic for the anaemia. Returned in about a week from pain & feeling better ordered her to continue pills (changed from mixture) for a good period and to report if any return of her complaints.

Case. VIII James Ferguson aged 45, gouty in nature

Jan 15. a retired gentleman, complaining of swelling under nipple on right side, and tender at nipple swelling "nodular"

May 20 complains of constant cough nothing discovered wrong in lung

Aug 25. Again complaining of swelling in right breast which annoys him. - a diffuse swelling "not nodular" and not tender

Oct 10 Complaining today of flatulent pain in stomach & bowels. Heart action normal

Nov 12. Looseness of bowels especially in morning and from no known cause

Mar 30 Diarrhoea & out of sorts generally Spine examined and tenderness discovered in upper dorsal region & lower cervical and to a slight spine more or less tender. Orders blitum & Eucalyptine

Apr 11 pain in breast, cough gone, diarrhoea checked and general health improved Treatment repeated and he has had no further trouble.

In connection with this case it should be mentioned that the family are gouty the case mentioned for of Angina

Case VIII

with spinal irritation was in his sister an elderly spinster.

This patient had married late in life and has already a fairly numerous progeny so that the causes of his spinal irritation may not be far to seek.

Result. Cure.

In connection with a above case of swelling & pain in breast I can recall a case in which one breast was amputated simply for neuralgia of the breast and I saw the woman back at the Infirmary where the second breast removed for the same thing. She said the misery was such that life was not worth living under these conditions and she asked the surgeon to remove the remaining breast which was done though how by the usual rules of pain being referred to the terminations of the nerves it could be certain of a cure I can't say. Her breast was removed and nothing pathological discovered in it. Of the patient I never saw or heard of her again.

Case IX Miss Henderson aged 42.

Sep 20-90 complains about pain in left breast, which she extends down left arm. Nothing abnormal about glands, pain apparently neuralgic in nature. Spines very irritable in lower cervical & upper dorsal bones & moves regular. Ordered Mustard to tender spines, and powders of following Ecalgine grⁱⁱ Salicin gr^x, one powder tea in die.

Oct 13-90 Spine very tender in whole extent, uterus examined and found very sensitive & retroflexed. Replaced and ordered belladonna pessaries.

Oct 28-90 Patient must improved spinal tenderness must less & uterus not nearly so sensitive.

Nov 25-90 Does not feel much improved. Clearly of a neurotic temperament. Awfully sensitive along whole of spine. Vaginismus & a similar condition of rectum. Believed pessary

Jan 1st Vaginismus overcome and careful examination was possible when a prolapsed ovary was found, and which was not tender.

Treatment best in bed & toilet tampons as the rest of the patient were discontinued and he can find signs of.

To show how frequently they occur when on the lookouts for them the following excerpts from the journal of Consulting Room

Cases X — XVII

- X
Sept 24. may be given.
Mrs. Barton. Main symptom pain in the back
of neck and great tenderness. Treatment
Mustard leaf. Exalgine & Salicin. Cure.
- XI
Oct 4. Miss Wilson, pain down inner side of
thigh, tender at lumbar spines mainly.
Treatment same as last. Cure.
- XII
Oct 9. Mr. Cuthbertson. Neuralgia of back of
shoulder and down arm of left side
only. Spines tender in cervico dorsal
region. Mustard leaf & Exalgine
Cure.
- XIII
Nov 4. Mr. Pollock. 54,
pains in abdomen, pain epigastrium
& down thighs. Nothing else complained
of and two spines mid dorsal very
tender. Same treatment. ^{Unusually} ^{rapid} ^{result.}
- XIV
Nov 25. Marion Lp. neuralgia of side & weak-
ness in spine complained of. Most
of spine tender. Same treatment. Cure.
- XV
Dec 8. Sarah J. neuralgia of head, back
of eyes pained, pain in left side
blister, Exalgine & Salicin. Cure.
- XVI
Dec 12. Miss S. rough, pain in chest,
& between shoulders, and very nervous
being afraid of serious disease of the

Cases XVIII — XXIII

- of the chest. Tenderness very marked between shoulders, Treatment same as other cases. Cure.
- ^{XVII}
Jan 11 J. Martin The pain in this case was above hip, and spines tender in lumbar region alone. Treatment same. Relief but not cure.
- ^{XVIII}
Jan 21 Mrs A. W. L. Pain in this case was intercostal neuralgia & spines between shoulders tender. Blisters and Cocalgine. Result only relief.
- ^{XIX}
Mar 16 Davis H. Case entirely same as last and treatment same, result same.
- ^{XX}
Mar 26 Mrs C. neuralgia of spine mid dorsal & pleurodynia. Tenderness in most of dorsal region. Same treatment as before. Cure.
- The above cases are perhaps quite sufficient to show the frequency with which cases occur once you are on the outlook however to show how cases may vary the following may be given
- ^{XXI}
Jan 4. Miss D. pain in side and tender 6th 7th 8th 9th D.
- ^{XXII}
15 Miss W. S. Case of breaking melancholia pain in side & tender 6th 7th D.

XXIV
Feb 8 Maggie M. neuralgia of side, of neck, of face, and all cervical region very tender. Cause

XXV
" Wm C. pains in head, neck, all down side and very marked in abdomen. Case is one of the sequelae of influenza; both cervical & dorsal regions more or less tender

XXVI
Mar 29 Allan Smith pain in side, chest & abdomen lower cervical & upper dorsal

XXVII
April 11 Rev Mrs. J. Heart affected & palpitation main affection pyrosis

XXVIII
May 16 Miss S. J. irritation mid dorsal spine pain behind shoulders & through in front. Nothing discoverable wrong in lungs. Great tenderness over spine in mid dorsal region

XXIX
28 Miss Annie J. intercostal pains, no rise of temperature, appetite good bowels & menses regular, left side alone disordered. Upper dorsal spine very irritable & sensitive

XXX
June 16 James Adamson. pain over liver & around to

XXX

^{XXXI}
July 8 Maggie B.

stomach all right, tongue
clean pulse shaky and easily
excited heart. Tenderness in
dorsal region. Relief
complains of heaviness after
meals & great weakness
Tongue furrowed, neuralgia
between shoulders with tender
spines there. Relief

^{XXXII}
9 Jeanie C.

pain at back of shoulders
with tender spines in upper
dorsal region. Had whooping
cough lately and this has
followed after it. Relief

^{XXXIII}
20 Mrs. Clark.

Melancholic but not bad as
yet. Had influenza at beginning
of year and this followed it
Has pains up spine & around
sides. Organs all sound. Bone
pain in left breast, some cough
and tender spines in mid-
dorsal region. No neuralgia

^{XXXIV}
Aug 18 Mr. H.

pain round side, no lung
trouble. Spines tender in
dorsal region. Cure

^{XXXV}
Nov 20 Maggie R.

Cases XXXVI — XXXIX.

^{XXXVI}
Dec 12 Miss Brookston

suffered from dysmenorrhea but now comes complaining greatly of pain in the back, spines very tender in lumbar region. Relief

XXXVII

19 Mary V. 26

mill worker, well built, stiffness in walk, complains mostly of pain in back & groins, legs feel weak. Knee and ankle reflexes normal. Tenses normal. Tenderness in spines about lower dorsal region. Cure

XXXVIII

28 Mr. Lorimer,

neuralgia of face & side under left breast suffers from lumbago. Tenderness in cervical & dorsal region. Relief

XXXIX

Mar 11

Mary Allan, 34,

complains of neuralgia pain in neck coming from spine which is very tender over 3-4-5 & 6th cervical spines and lower down in upper dorsal region. Cure.

XL

Mar 21.

James H.

complains cough and is afraid of left lung, pain

Leaves XXXIX - XLIII

^{XL}
May 16 Mch. 16.

along left side, spine very sensitive in cervical region complains of pain in both breasts which was frightening her very much as she had the usual dread of suppurating breasts. Spinal tenderness was very pronounced twist shoulders.

All these cases were treated on the same lines, mainly, mustard leaf occasionally varying to a blister over the tender parts and localizing grⁱⁱ + salicin gr^x, three daily.

XLII +
XLIII

Two cases may be inserted here that are not properly spreading cases of spinal irritation pure & simple but cases of symptomatic spinal irritation akin almost to meningitis and which are only inserted to illustrate an article by Ord as to the connection of the disease with uterine conditions. The cases were quoted some years ago when I was a second year student

Cases XLII - XLIII

yet I was so impressed by them that I have no difficulty in working them now though the doctor quoting them to me has now no recollection of the cases whatever.

He was in charge at Kitching and in that institution was constantly coming into contact with unusual cases.

Two lieutenants was in the ward suffering from ~~a~~ severe attacks of gonorrhoea, joint affection set in and high fever & then spinal complications set in & killed them. On my inquiring the nature of the spinal case symptoms I was told that they were complication of the bladder paralysis, loss of motion, & hyperaesthesia all over limbs. My questions as how the gonorrhoea could cause those symptoms remained unanswered and until the time I read Oord's article I never properly understood the aetiology of the cases.

Case XLIV.

James Burt. schoolboy, ages 9 years.

complained of feeling tired, sore shoulders and arms. His mother thinking that hoose was nothing much the matter, put him to bed, gave him a cooling powder. Next morning he was not better in any way, so on enquiring into his complaints, she discovered that one shoulder only was sore, and one arm, leg and that he had felt the pain first after having drill at school. She then procuring some embrocation proceeded to rub the painful parts complained. On the following day, she found in addition that he complained of his back as well as his shoulder. (The sore part being at the lower angle of the scapula. A blistering plaster was then applied to that part on the following day as he was worse the doctor was thought necessary.

I found him, flushed, breathing shallow nostrils dilating and other signs of breath hunger, temperature 105, pulse 120 and soft. Listening over the chest carefully I found nothing wrong, and I certainly expected

either a pleurisy or a pneumonia.
 I found great tenderness over stomach,
 over heart, at lower angle of scapulae,
 and at spine of 3, 4, 5, & 6th dorsal
 vertebrae. Stomach distended, tongue coated
 brown constipated, no appetite whatever.
 From the temperature, pain and attitude
 of boy, - opisthotonus, - back arched back
 and the manner in which he tried to
 raise himself from the recumbent
 position, I concluded that he was
 suffering from a spinal meningitis of
 some kind or other and that the pain
 he felt during drill was from the
 movements but that the drill was not
 the cause of the pain. Application of
 leeches over spine was tried and
 Antifebrin & Salicin given him to
 bring down the temperature, as well
 as Jalap & Calomel to open the bowels.
 The temperature came down gradually,
 pain gradually lessened and in
 about 6 days were gone. As the
 pain was going a temporary loss
 of sensation occurred in both arms & legs

but that gradually passes off too & the lad is now well.

A sister of his died of cerebral meningitis at his age. No cause for his attack except football & getting cold after winds. This case is given to show that but for the temperature and the arched back the case would have more likely coincided with other cases of spinal irritation.

Case of spinal irritation without the irritation. M. W. age 39, married no family came complaining of tired out feeling no energy and anxiety arising from painful breasts. Both breasts were tender to the touch, and swollen but no signs of any tumour. No painful part in the back could be found. Bowels constipated, menstruation normal. Patient looks decidedly nervous & anxious so even although no painful spots in back, I decided to try the effect of a blister on the lower cervical & dorsal spines. Three

days afterwards patients came back saying the pain was less and due only to bare blister scappling. This was done on two successive occasions & each time with benefit. Some months after patient came again with same complaints and this time the dorsal (upper) spines were markedly swollen and the case chosen though not so easy to treat as the disease was more difficult to remove ultimately it did go but has always recurred every now & again. Doubtless the cause in this case is deep-seated malarial infection as the patient is of a fractious nature.

Comparing the cases with Hughes p. 57. I find

1. No particular temperament.
2. No exciting cause in every case.
3. Symptoms right
4. Not usually all spine involved
5. No suppuration 6. No regular phlogistic condition
- guinea 7. No well defined condition of plethora.
8. Not always absence of purplish coloration
9. Mostly a resolution of disease under treatment.

Morbid

anatomy and pathology

like the famous chapter on snakes in Ireland this in so far as the morbid anatomy ^{is concerned} would be left blank there have been few if any postmortems in this connection and any investigation has been by accident

The early writers up to the time of Ziehl considered it to be due to an irritable or subacute inflammatory state of ~~the~~ either the posterior roots or the spinal marrow. Ziehl says quite distinctly that by irritation he means the first stage of inflammation and in effect he says the condition is a slight inflammation of the spinal cord or marrow as he calls it and it may be he was for wrong and that the nerve cells are in an inflammatory condition or rather state of irritability akin to the first stage of inflammation

A idea I have always had is that there is no work done without some cell waste and that any function even when normal involves some wasting of the nerve cells. There if not overwrought

Morbid Anatomy & pathology

Speedily recover themselves being supplied with nutriment from the blood or perhaps energy from the higher centres.

Now suppose these nerve cells were being exhausted quicker than they could be restored, they would get into that peculiar irritated condition, akin to the condition preceeding spasm of muscle. If the exhausting process still goes on, these cease acting altogether and functions are completely suspended. They may have the power to draw on the reserve stock of energy of the other kindred cells, - cells from cells & centres from higher centres - so when they become bankrupt of energy they may overdraw on the higher cells and may continue over drawing until they get their neighbours into the same bankrupt condition as themselves and thus explain the wasting of other centres.

The sexual organs do take a functional type frequently from over use get into a peculiar irritated condition akin

Martin Anatomy & Pathology

so spasms, continued and spinal irritation is set up and continues still further and you have reflex action set in and other functions disordered.

In following out this idea Ord in his admirable lectures gives the following

In showing how certain kinds of joint affections are caused by remote causes he makes spinal irritation the kind of half way stage towards the cause and effect, this in showing how joint affections arise in gonorrhoea, he shows how the urethral condition gradually sets up spinal irritation and the trophic lesion produced shows in the joints affected in this way he explains how the joints of the legs are often affected more than those of the arms.

Ord thinks that sometimes or often the uterine surface in women and its analogous part in man the prostatic portion of the urethra in man have great power of producing enormous excitement in the cord as witnessed

W. W.

Morbid Anatomy & Pathology

by the variety of centres influenced reflexly during the sexual act. He thereby accounts for the dysmenorrhoea in women producing trophic lesions such as digitiform nodi and in these cases says it is a dystrophy determined by the nervous ~~excitation~~ irritation propagated as the case happens from the uterus to the cord, spinal irritation set up and the influences on the centres around causing the trophic lesions in the joints.

He quotes cases in support of his theory of which the following is a summary

"Best case of dysmenorrhoea with
"excessive pain in the back and
"digitiform nodi of lower extremities
"than the other symptoms.

"By successfully treating the ~~joint~~
"dysmenorrhoea & getting it amended
"the pain in the back passed
"off and the joint implication
"gradually cleared away after
"wards"

He says as part cause of the dysmenorrhoea producing such results

Morbid anatomy & pathology.

That the condition is one of debility & often of extreme anaemia; and that it is a matter of daily experience that in such conditions the reflex excitability of the cord is increased and it explodes so to speak on the application of impulses which in its proper condition of nutrition it would transmit naturally.

In man in the same way he explains how from the gross power the urethral surface in influencing its centre and how that centre affects all others readily how you have so readily disordered functions in connection with sexual irritation.

He relates a case of apparently gouty joints that came on after prolonged sexual excesses in a widower, completely cured by marriage, recurring some years after when his wife from a diseased condition of the parts was unable to permit intercourse.

Austie id.

Oliver	Hammond	391.
Line	Hammond.	391

Hammond. id. p. 400

Morbid Anatomy & pathology

Quetelet says that disease of the sexual organs & viscera are very liable to set up spinal irritation and Coghill says it occurs as an incidental affection in uterine disorder & gastric ulcer.

The conclusion may then be safely drawn that certain conditions of uterus & prostatic portion of urethra are very liable to set up spinal irritation.

As to the actual condition of the cord when the spinal irritation occurs, there that is a matter of great dispute & various opinions are held, not compatible with one another. at first sight.

Ollivier says " congestion of the membranes

Livick says it may be due to two

things 1. disorder of other organs reacting on cord

2. derangement of capillary circulation of the cord

He fully understood the two kinds of spinal irritation

Hammond calls the disease spinal Anaemia of the posterior columns of the cord, and proceeds to prove it by

baghill is.

Mott's Anatomy & pathology.

The analogous & case of cerebral anaemia. The proof is partly from the fact of the recumbent position giving relief. That the condition of the patient is generally anaemic, (but why should a general anaemia only fancy the posterior column he doesn't say) that injecting ergot makes it worse, and that injecting strychnia, cures it, but the facts of the cases are too much for his theory and the leeches, bleeding and the curative effects of the strong counter irritants are all against him. Coghill did not find his cases relieved by secundoanery and he came to the opposite conclusion and held that the condition was one of congestion of the spine at that particular part.

- " The affection consists of a passive
- " congestion of the venous plexuses
- " within the canal which induces
- " pressure on the structures there
- " either by direct contact or by
- " influencing the vasomotor supply

Brown Square n. Swan.

Morbid Anatomy & physiology.

The pain is doubtless simply disordered sensation from the functions being deranged owing to some alteration in the blood supply.

Quain says the local symptoms are due to the irritable condition of the cells at that part from which the nerves come. The distant ones are either due to reflex irritation or direct irritation of spinal nerves and these he classes as referred sensations. are as follows
 spasms, increased tonicity
 contraction of blood vessels
 trembling, altered heart action
 stomach, throat & chest
 Complaints

The actual condition of the cord must remain a debatable point, some maintaining the anaemia theory and others the congestion one, and it is quite possible both are right, both conditions may produce not exactly the same things but effects resembling one another, the irritated condition due to anaemia may be quite similar to the overactive state due to congestion (allergic)

Morbid Anatomy & Pathology.

and when the congestion is passive the condition of nutrition will be similar to that of anaemia. The wisest plan will be to hold a neutral opinion until the actual condition if there be only one is proven.

As to how the disease arises, I think in most of cases the disordered function say of stomach from careless feeding reacts on the centre, setting up spinal irritation there, this centre then keeps the mischief up and may also affect other centres so that the time comes when you have to treat the spinal irritation and not the primary condition. This idea may account for the so-called chronic dyspepsias, the stomach being said to have got into an irritable condition similar to that of the uterus when given to aborting when may be capable of a similar explanation.

Causation

The causation of this disease is vague & obscure. Hammond says sex is the most powerful predisposing cause. If he means by that the fact that it mostly occurs in females that is so, still it is making a wrong use of a term is ~~say~~ that sex is a cause. as ^{he says} thereby, that women are necessarily prone to disease. It is only a fact that should be taken into account in connection with the diagnosis the fact that it occurs mostly in females. Still as is customary to consider the relation to sex under this heading, with the above protest we may do so. Out of 304 cases examined by Joffe 112 were males, & 50 by B. Segner only 2 males. and 30 cases examined for present article. 8 were males.

Joffe	112	out of 304	=	1 in 7
B. Segner	30	out of 50	=	1 in 16
(Wright)	8	out of 30	=	1 in 3.5

There is no doubt that the functions of women when deranged as very apt to set up spinal irritation

Coghill insists on a predisposing temperament though he is not quite so clear in his

Causation

deception of the temperature or how it should have any influence. The temperature the mutation is sanguine lymphatic.

In this connection Austin says:

Peripheral irritations in themselves slight & insignificant and of no determining influence ordinarily, in subjects predisposed to it may set up special irritation.

Heridity is another important factor in this disease and he adds an important piece of advice "don't depend too much on heridity as though you may on an important active cause such as sexual disease."

Shock as from railway collisions commonly causes it.

Represses sexual functions, concussions & fruitless sexual irritation and particularly impure habits, not so uncommon in boarding school girls as one would like to think. Dependence upon causes by hopeless prospects. Business worries and other causes.

Uterine Disorders are more powerful in setting it up and in man the

Causation

the analogous part the prostatic urethra has the same powerful influence. It shows clearly how these causes act and considering how all pervading the sexual desire are it is nothing but what one might expect to find that the sexual instincts were powerful in setting it up. And when the ordinary mistakes merely overactive or over-used can do so little wonder that any unusual form of Sexual excitement should do so more readily. To a young woman rendered melancholy by a disappointment who has a passionate affection for children and irrepressible longings to have them herself, constantly brooding over the idea, you can understand the irritation connected (with the thoughts) in the ovaries & other parts setting up spinal irritation and gradually upsetting all the different functions. One great cause of this disease that has been more apparent of late years on account of its prevalence than before is influenza. During the disease the pain

Causation

of the back is one of the prominent features and as the victims of the disease can well testify it is one of the last to go. For weeks or even months this pain in the back will last, making the patients doubtful if ever he will be well again and preventing any return to work from the all pervading feeling of weakness. Now although not marked during the influenza attack, it is almost sure to be during the convalescence which always shows is doubly so when the influenza back is present. Whatever may be the cause of the pain during the height of the fever in influenza, there is no doubt that it is similar to, if not exactly spinal irritation in the after periods. In at least 50% of persons who have had influenza on inquiring you find that they were on the slightest illness from whatever cause a return of the pain of the back which they had before, so that if spinal irritations are to be classed according to types or degrees that

Cauration

Caused by *myringa* would be classed as one of the worst kinds and most difficult to get quit of.

To sum up, it may be said that the causes are varied, often obscure often impossible to treat, or remove. That in many cases it is only a symptom of more serious complaints.

Pages. iv.

Diagnosis

The danger of mistaking serious organic disease of the spine for such a comparatively simple functional disease is such as to require great care in diagnosing, particularly as the initial stage of spinal caries requires to be recognised and treated early to have any chance of curing, so that if the pain attendant on the initial stage of spinal caries were diagnosed as spinal irritation the results might be very disastrous.

The end to be gained in this connection is such as to warrant giving rules for guidance in distinguishing between the spinal irritation & spinal organic disease and the symptoms likely to be interpreted wrongly will be considered in detail. Sir James Paget in his lectures says

"In real (i.e. organic) spinal disease as distinguished from mere neuritis you have not racking pain" & the more severe the pain is, the less likely to be organic disease of the part.

Of course in some highly strung nervous individuals this pain might be expressive of real spinal disease and is exaggerated owing to them.

Diagnosis

peculiarly constructed nervous system.

In cancer & aneurysm involving the cord and ~~in~~ in acute inflammation of the membranes you may have such pain but as a rule excessive pain is significant of no real disease.

Excessive tenderness in the same way is suspicious and is seldom found in real disease of the spine and if in any case you find that you produce more pain by a touch than by a blow you may be almost sure of spinal irritation rather than organic disease.

Pressure producing distal effects such as nausea & vomiting is fairly significant of spinal irritation as you don't have it in real disease.

The time that the pain has lasted without producing any appreciable change in the parts is another point favorable to spinal irritation rather than to real disease. Waiting for time to complete your disease is an uncomfortable method for the patient & you may find that in the interim the friends have consulted some

Page iv.

Diagnosis

one else

The other points assisting a diagnosis are alteration or not in curvature, fixity of pain to a spot or shifting; in real disease being fixed. Diminished mobility is one of the best guides, if you have it you are pretty certain your case is that of real disease, as in spinal irritation the movement is perfect; fixity of the spine being indeed rare in nervous & functional cases.

The following sentence from Paget puts it concisely as to how you can judge from uselessness the amount of disease there is

"a man limbling spine may be healthy
 "though it may contain an idiotic
 "spinal marrow in the same way as
 "a good skull may contain foolish
 "brains"

More weakness is no guide.

Deformity is another useful guide if you allow for the fact that spinal lateral curvature is often simulated by muscular spasm, a thing common in

See 10.

diagnosis

spinal irritation

As regard time in diagnosis there is this to be said that a few days will make more progress in functional disease than months will do in real disease. Stiffness, fever, high temperature & marked wasting would all point to real organic disease rather than functional disorder.

Dr. Fox is treating of the diagnosis of this disease says that

- " that functions of the spine being so
- " varied you have a correspondingly
- " varied group of symptoms. They
- " are most difficult to examine &
- " to come to a definite conclusion
- " and worst class of all to examine
- " & determine is that in which the
- " main symptom is pain

He laments greatly the fact that the symptoms being mainly subjective you are wholly at the mercy of the patient and his idea of women and their capacity for truth is not very high.

- " From this nature (i.e. women) you will
- " easily appreciate how liable the

Diagnosis

- " the report of her symptoms are apt
- " to be exaggerated.
- " Habitually prone to exaggeration
- " you are peculiarly dread-savagers in
- " this almost entirely subjective group
- " of symptoms.
- " Remarking further he says
- " the more attentive you are in listening
- " to her tale of woe, in proportion do
- " the details lengthen.

Care requires to be taken to see if you can produce pain along course of nerve or not if that is the case then you have more likely an ordinary case of neuralgia

- " And it must not be forgotten that
- " you have an irritable spine along
- " with neuralgias such as
- " cervico occipital neuralgia (care
- " cervico brachial
- " inter costal
- " lumbos abdominal
- " sciatica

Dr. J. evidently does not think these cases of spinal irritation with pain along course of nerve. So far as I can make

Anti-
m

Diagnosis

our spinal irritation is not to be completely separated from neuralgias & lumbago and a careful reading of the article strengthens the opinion that the cases are mixed and his article certainly does not clear any of it up. Contrasting it with hysteria Austin gives the following points for guidance

1. Cutaneous anaesthesia rare in spinal irritation in fact the reverse condition obtains
2. Marked loss of will power does not occur in spinal irritation
3. There is a close connection twixt spinal irritation and the sexual organs and little in hysteria though the nomenclature would lead to the opposite opinion, hence visceral & sexual disturbance is much more likely to set up spinal irritation than hysteria
3. Rarely has a mental causation which is common in hysteria
4. The tenderness is quite distinct from the congested & superficial soreness

Byron Bramwell 2 p 269.

Diagnosis

So often complained of in hysteria in connection with the diagnosis from hysteria, the brother Joppin at all events recognises that the things were separate saying that throat tenderness at one or more points is attendant on all hysterical affections, also in numerous cases of functional disorder and in many nervous or neuralgic affections.

Byron Bramwell says "chiefly in young women frequently with symptoms of hysteria" in that perhaps he is wrong, unless a separate division is made of spinal irritation associated with hysteria.

Another point of Byron Bramwells is "no evidence of organic disease" and that is what constitutes the main distinction between idiopathic & symptomatic cases of spinal irritation and also from other diseases of organic nature.

The pain in the back which with the tenderness constitute the crucial points of the diagnosis is of such importance that lingering on it is clearly excusable. Pain in the back comes from a fairly wide

Diagnosis

range of ~~various~~ causes, some cases being no tenderness on pressure & are easier to diagnose, so that it is wise to begin closely into the causes and see if they can be arranged suitably for easy diagnosis. Two textbooks take up this subject. Most of them in the index say "see Meningitis etc." the word - etc - creating a multitude of deficiencies but in such a carefully prepared work as *Thompson's Clinical Manual* one is surprised to find ~~this~~ author followed the others in this respect. In that manual (which is singled out not out of vindictiveness certainly but because medically it is a household book and for practitioners there are but what here recourse to it) you find the stereotyped phrase "Pain in back see Metrorrhagia, dysmenorrhea etc."

Byron Bramwell has evidently more regard for the difficulties of the average practitioner and gives a fairly long list of causes of pain in the back from

Byron Bramwell.

Diagnosis

which the following has been proposed.

1. Inflammatory condition of skin & subcutaneous tissue

There you would have signs of local disease, such as redness, swelling etc

2 Muscular rheumatism or lumbago

Attack acute & rapid in progress. Movement increasing pain, rest relieves it. Tenderness on pressure to affecting of other functions. No pyrexia

3 Smallpox, yellow fever & other infectious diseases

These are not shown in by backache but are easily diagnosed from skin.

4. Disease in or about kidney.

such as inflammation of the peri-nephritic cellular tissue, renal calculus, and in such conditions of the urine, character of pain - acute paroxysmal - physical examination of lumbar region are guides

5. Disease of vertebral. as primary bone disease

You here, general health affected, curvature altered. Patient voluntarily or rather carefully keeps back rigid, will neither stoop nor jump unnecessarily. May have the pressure effects present

Diagnosis

6 Uterine disease,
Ulcer of Stomach

7 Neuralgic affections
Spinal exhaustion
Spinal irritation

8 Tumours within
Spinal Canal
Record.

9 Spinal Meningitis

The evidence of these complaints and is refer pain (My idea is there are cases of Spinal irritation). In spinal irritation patients young marked hyperaesthesia from no apparent cause, no evidence of organic disease. Symptoms of hysteria generally present (?). General health below par, anaemia present or uterine derangements. You have symptoms of slow compression. Diagnosis sometimes easy when secondary tumours absence of path. disease absence of any cause for meningitis that is present; but particularly the gradual & steady advance of symptoms both acute & chronic pain is well marked, & aggravated by movement. In the early stages during the period of irritation you have well marked hyperaesthesia and sharp shooting pains, symptoms of motor

Ryson Braunoch.

Diagnosis

irritation, such as cramps, either from direct pressure, or from reflex irritation. Paralytic symptoms subsequently occur. When myelitis sets in you have symptoms of it added.

As there seems to be more danger of mistaking Chronic meningitis from spinal irritation a differential table will be given, from the same source

Points	Chronic meningitis	Spinal irritation
Age & Sex	either sex, mostly young males	almost exclusively in females?
Mode of onset	usually gradual, may follow acute attacks, then onset with fever	often gradual often sudden(?) onset not marked then by fever.
Hypaesthesia from spine	seldom a prominent feature	a very marked & characteristic feature.
Stiffness of spine	usually present.	does not occur.
Course & Symptoms	Pain spasmodic location, does not vary much in distribution & intensity, and also symptoms indicative of organic disease may be present as local muscular atrophy.	marked fluctuations in character & intensity and a striking contrast between the sensitivity of the subjective & objective symptoms. No signs of organic disease of cord.
Other signs of hysteria	No connection with disease in either case.	(B. Brannon says here: common.)
Mind & cranial functions	usually normal when in females.	often deranged.

Diagnosis

With a reasonable amount of care the diagnosis should not go far wrong and even although the spinal irritation is obviously a secondary affair, you do not learn beyond loss of time in treating it and loss of time is mostly serious in cases of spinal caries, the disease most likely to be watched for since warning has been given. Spinal irritation from uterine & similar derangements may often be cured by suitable treatment although it will recur unless the original condition is altered. With these points the treatment may now be considered and afterwards the prognosis & results.

Treatment.

This has varied but little since the days of Leale and perhaps that is little to be surprised at considering his success in treating his cases from his clear perception of the subject. The following table will show at a glance, the treatment from Leale down to the present day.

Date	Author.	Local Remedies					General Remedies.
		leeches	cups	Blister	Liniments	Other things	
1824	Leale	"	—	"	"		Nothing but attention to bowels.
1829	Leale	—	—	—	—	Leale's emulsion	
1831	Wharton	"	"	"	—	—	
1832	Parish	—	—	"	"	—	
1834	Sniffin Esq.	"	"	"	"	—	Hyoscyamus & bellad.
1837	Blivies	"	"	"	—	—	Hyoscy. digitalis & op.
1844	Thind	—	"	—	—	—	Iron.
1868	Radcliffe	—	—	"	—	—	Iron
1873	Hammond	—	—	"	"	—	Iron & quinine & St. J.
1876	Austie	—	—	"	—	—	Iron generally.
1875	Baghill	—	—	—	—	Cautery	Iron
1884	Free.	—	—	—	—	Bonche	Feeding & alcohol
1884	Brown Esq.	—	—	"	"	ice & local hypodermic.	

One might say that bleeding has gone, the blister use has been steady & other treatment has been changeable.

Zale. p. 20.

Zale. Hammond. w. 388.

Whellon. Hammond w. 388.

Corrigan Hammond 388.

Parish. Hammond w. 389.

Treatment Historical

← Seale p. 20. The antiphlogistic ideas were carried out at first Seale recommended depletion by leeches and cupping along the side of spine with blisters on the painful parts, repeated if necessary when the fever occasioned by the blistering had passed off. Proper attention to bowels. At first he insisted on recumbency but afterwards he did not place so much dependence on it. If any tendency to relapse the use of a stimulating liniment such as

Op. Sumbath. 1 part

Ol. Olivae. 2 parts

← Tate Tate treated his cases by rubbing all the spine with Tartar emetic ointment, a thing not copied much by other writers

← Wharton Wharton recommended abstraction of blood from the tender parts either by leeches or cups and application of blisters on each side of painful part

← Corrigan Corrigan gives particulars of successful treatment of his cases by local remedies particularly he button cauterizing and also at same time treating any anaemia present.

← Parrish Dr Isaac Parrish of Philadelphia counsels treatment by counter-irritants and remarks however that

Grippe. Stammers is 389.

Brown Regard. is 390.

Treatment continued

← Parisk

tenderness on pressure is an attendant on many chronic neuralgic affections

← Griffin

D^r W. Griffin & his brother agreed on the following methods as most successful:

Removal of cause if possible if it continues
Purgatives; blisters, leeches, locally; while the
administration of hyoscyamus & belladonna
was carried on to lessen the irritability.

When the stomach was deranged Alum was given
Change of air & scene.

← Brown Sequard

In Quain's Dictionary of Medicine, the subject by
Brown Sequard differs in treatment from the
others somewhat.

Locally, ice pounded and applied, & changing
it rapidly, substituting hot flannel
Paequetin's Caustery at the white heat is advised
as exceptionally useful. Rest in bed as ordinarily
carried out he thinks useless. As for general
treatment he only considers it as a useful
adjunct to the local remedies, treating any
obvious thing as anaemia. If you fail
to relieve by the above methods he advises
the trial of hypodermics over the seat of
pain and seems in no way afraid of
inducing the morphia habit in a nervous

Captain W.

Gen. W.

Ref. Memorandum Jan 184.

Treatment continued

Boirondequand individual. For injecting he says try
 Morphine $\frac{1}{3}$ - $\frac{1}{2}$ gr. nightly or
 Strychnia $\frac{1}{35}$ - $\frac{1}{25}$ gr or
 atropine $\frac{1}{50}$ - $\frac{1}{100}$ gr

an ointment of atropine could be substituted
 for the treatment of cases Dr Coghill says
 change the condition of the urine. He has found
 it phosphatic. Mental rest. Ionics. Change of
 air and application of anodyne liniments
 failing which to apply Corrigan's button.

Dr Gee in his lecture on Spinal irritation
 & Spinal Myalgia in particular says
 treat by Rest in Myalgic cases.

Hot douche once a day for 10 minutes

Feed as much as possible

Moderate amount of alcohol

Rest on stretch when you are not in
 danger of creating a couch invalid
 "Better an irritable spine than an
 "invalid for life"

Dr Betz in ~~Memorabilia~~ in Memorabilia Jan/194
 strongly recommends painting back with
 a one per cent solution of nitrate of silver
 in alcohol. Relieves pain in back from any
 cause. Is agreeable & seldom produces any

more to

Treatment continued

← Anæsthe

irritation of the skin, no matter how often applied. Anæsthe counsels first improved diet. Entire repose, He made them eat whether or not, in the Wain Mitchell style. He condemns the recommendation of the brethren for applying leeches saying he never saw it do good and often it did much harm. Blistering he thinks good. Jones such as iron, arsenic, strychnine, changes of scene & air when due to blighted affection or deferred maternal instincts thus keeping on his favorite idea as to cause.

The new local anæsthetic Ethyl Chloride has been recommended for relieving the pains in the back of locomotor ataxy in addition to its other relieving qualities and without any intention of making it an universal panacea for spinal irritation it can certainly be applied with success. From its peculiar rapid relieving powers it is of great service in this disease as you can relieve them for some hours, long enough to give them a nights repose while you try other things as well.

Treatments continued

We may summarize the treatment to this

1. Treat any obvious cause.
2. Treat any condition liable to keep it up.
3. Treat the irritation in cord & back.

The first two heads are general in nature, and wide in range, some of the causes may be difficult such as deformed maternal instincts. emotional causes, mental worry from affairs of business (Kendall's).

State of blood such as anaemia, phosphatic condition of urine and such like to be treated first

Under the third head viz you have a variety of treatments to pick & choose from. Mild cases may do simply by

Liniments, hot douche, ice.

More severe cases may require

Blisters, cauterizing.

Ether spray, Chloride of Ethyl.

and what may suit one patients may not suit the other. As a general rule, in the case quoted in this essay, the treatment was Mustard leaves or blisters to the tender parts, and the newer analgesic Eucalgine combined with Salicin

Treatment continues.

Occasionally Antifebrin was given instead of Eucalgine with little difference in results. Two grains of Eucalgine was the largest dose used and that thrice daily.

Antifebrin in the now recognized dose of 5 grains at most. The results of the treatment has been in most of the cases relief if not cure and certainly such as to encourage going on with it until a better routine treatment is found. The Chloride of Ethyl spray is the one I expect most of in the future. Of late the different applications with success have been surprising and the drug as a local anesthetic is growing in favour. It is too early to speak positively of its use in these complaints but it is worth keeping in mind.

Prognosis

According to most of the authorities this is bad as far as getting cured is concerned but in so far as life is concerned it is sometimes accounted a pity both for the patient friends & others that the facts are against death coming on & putting an end to the misery.

D'Arcy says

- " when once an irritable spine is developed
- " they seldom give it up or at least
- " rarely confess that it is improved"

From that statement it is easily seen that his knowledge of the subject has been singular in being obtained mostly from hysterical cases so that his generalising can hardly be accepted as good.

Anstie says

- " Bad when from suppressed maternal
- " or sexual instincts, particularly
- " when the mind cannot be diverted
- " from it & doubly so when it
- " has led to unnatural habits.
- " Also the more pronounced the
- " inheritance the worse the prognosis is

Brown Sigurd. in Linn.

Prognosis

- " if however in a sound constitution
- " this gives a better chance.
- " In sexual cases it will depend
- " on the purity of the mind and
- " the chances of the legitimate grati-
- " fication of the instinct

As to the influence of the mind in curing or helping disease, his experience is that in cases caused by railway shocks they usually recover if it is their interest to do so, as they then exert themselves to the utmost to recover their balance of mind.

Brown Sequard says

- " prognosis not good, though they
- " don't die yet they don't recover.
- " The American practitioner claims
- " to have cured 133 out of 156
- " but that is exceptional.
- " The worst features are that is
- " renders the patients most miserable
- " from pain, weakness and the
- " various functional disorders which
- " it produces "

He results in the cases under consideration

Results.

have been totally different, as given below.

Cures.	Improved.	No result.	Remarks.
Case. <u>I</u>		<u>III</u>	Lashed for years.
<u>II</u>		<u>IX</u>	Case lost sight of.
<u>IV</u>			Too early to say cured.
<u>V</u>	<u>VI</u>		
<u>VII</u>		<u>XIII</u>	Nothing heard of case.
<u>VIII</u>			a long standing case
<u>X</u>	<u>XVII</u>		Not a very intelligent
<u>XI</u>	<u>XVIII</u>		person.
<u>XII</u>			
<u>XIV</u>			
<u>XV</u>	XXI		
<u>XVI</u>	XXII		
	XXIII		
<u>XXIX</u>	XXV.		from influenza
<u>XX</u>	XXVI		
<u>XXIV</u>	XXVII		
	XXX		
<u>XXVIII</u>	XXXI		
<u>XXXIII</u>	XXXII	XXXIV	person of uncertain habit
<u>XXXV</u>			and impossible to treat
<u>XXXVII</u>	XXXVI		from uterine disease
	XXXVIII		" " "
<u>XXXIX</u>			
<u>XL</u>		XLII	
<u>XL1</u>		XLIII.	Death from obscure cause.
22.	14	6.	

The proportion of 22 cures out of 32 cases and of the remaining cases 14 improved is certainly an encouraging sign and the prognosis is not so gloomy nowadays as it was.

Thus